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EXAMINER

CONSILVIO, MARK J

ART UNIT	PAPER NUMBER
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2872

MAIL DATE	DELIVERY MODE
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07/24/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/522,447

Applicant(s)

BLAKEMAN ET AL.

Examiner

Mark Consilvio

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION:

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Status of Claims

The previous office action filed 05/02/2007 is hereby vacated and new grounds of rejection are applied in light of the amended claims.

Claims 2-37 were previously rejected and claims 2-4, 6, 10-11, 14-15, 17, 24, 27-28, 30, and 37 are newly amended. Claims 5, 16, and 29 are newly cancelled. Claims 2-37 are currently pending.

Claim Objections

Claim 18 is objected to because of the following informalities: Claim 18 depends from cancelled claim 16. For the purposes of examination claim 18 will be read as depending from claim 11. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2-4, 6-9, 11-15, 16-28, and 30-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 3 (in the 2nd line), 11 (in the 3rd paragraph), and 24 (in the 3rd paragraph) recite the limitation "the first diameter." There is insufficient antecedent basis for this limitation in the claim. It is not clear from the claim

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language if this limitation refers to the first diameter of the bulb end portion of the first mounting stud or the first diameter of the bulb end portion of the second mounting stud. Claims 3 (in the 2nd line), 6 and 17 (in the 1st/2nd line), 7 and 18 (in the 1st line), 11 (in the 3rd paragraph), and 24 (in the 3rd paragraph) further recite the limitations "the neck portion" and/or "the bulb end portion" that, likewise, have insufficient antecedent basis. Similar problems exist with the limitation "the aperture" in claims 2, 3, and 8. This list is not intended to be exhaustive and the examiner recommends careful view of all pending claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 2-4, 10, and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishigami et al. (US Patent Application Publication No. 2002/0130239) (herein Ishigami '239).

With respect to claim 37, Ishigami '239 discloses a vehicular mirror assembly comprising: a mounting frame (12) adapted to be coupled to a vehicle; a mirror shell (28) mounted to the mounting frame and comprising a rearwardly-facing opening; a reflective element (not shown) mounted within the mirror shell in register with the rearwardly facing opening; a tilt actuator (16) mounted to the mounting frame, and to the reflective element for tiltably actuating the reflective element (par. 71); and at least one connector (64) joining at least one of (1) the mounting frame and the mirror shell, and (2) the tilt actuator and the mounting

frame; wherein the at least one connector comprises a neck portion (66) having a second diameter, transitioning to a bulb end portion (end of 66) having a first diameter greater than the second diameter, and an aperture (24) having a diameter greater than the second diameter and smaller than the first diameter, to provide a columnar snap-fit connection which securely retains the at least one of (1) the mounting frame to the mirror shell, and (2) the tilt actuator to the mounting frame (figs. 1 and 10).

With respect to claim 2, Ishigami '239 discloses the aperture (24) on at least one of the mounting frame (12), the mirror shell (28) and the tilt actuator (16) and a stud (i.e. a second hook 64) on at least one of the mounting frame, the mirror shell and the tilt actuator wherein the stud is adapted to be snap-fit within the aperture to securely mount the stud within the aperture (fig. 10).

With respect to claim 3, Ishigami '239 discloses the stud (64) comprises a bulb end portion (end of 66) having the first diameter and a neck portion (66) having the second diameter smaller than the first diameter, the neck portion adapted for snap fit communication with the aperture (fig. 10).

With respect to claim 4, Ishigami '239 discloses a vehicular mirror assembly wherein the stud (64) is integrally formed with the at least one of the mounting frame, the mirror shell and the tilt actuators (fig. 10).

With respect to claim 10, Ishigami '239 discloses a vehicular mirror assembly wherein at least one of the mounting frame, the mirror shell, and the tilt actuator is made from a material selected from the group consisting of: glass filled nylon, acetal, polyester, and ABS plastic (par. 12).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-9, and 16-19, and 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishigami et al. (US Patent Application Publication No. 2002/0130239) in view of Kurz, Jr. (US Patent No. 3,843,236).

With respect to claims 6-9 and 16-19 and 30-32, Ishigami '239 discloses the invention as set forth above, but lacks the specifics of the connector including the bulb end portion comprising an annular face having an approximately 45 degree bevel, the neck portion comprising a truncated cone inclined approximately 10 degrees, the aperture comprising a wall inclined approximately 10 degrees, and the stud comprises a bore extending coaxially therethrough. However, snap connectors of various shapes are known in the art. For example, Kurz teaches a mounting stud (64) for a mirror comprises a neck portion (70) and a bulb end (66), the neck having a smaller diameter than the diameter of the bulb end. Kurz further teaches the bulb end comprises an annular face (72) having approximately a 45 degree bevel, the neck portion comprises a truncated cone inclined approximately 10 degrees and the stud comprises a bore (78) extending coaxially therethrough (fig. 5). Additionally, regarding claims 8, though both Ishigami '239 and Kurz teach apertures with a wall to accept their respective mounting studs, neither teaches the wall inclined approximately 10 degrees. However, one of ordinary skill would have understood that slightly inclining the aperture wall would allow the stud to be

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inserted more easily and would reduce vibrations when matched to the incline of the neck portion. Therefore, absent a showing of criticality, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a mounting stud like that of Kurz to the assembly of Ishigami. One would have been motivated to do this to provide a secure, removable snap-fit connection that is easy to assemble and helps prevent the transmission of vehicle vibrations to the mirror (Kurz col. 2).

Claims 11-15 and 21-28 and 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishigami et al. (US Patent Application Publication No. 2002/0130239) in view of Ishigami (US Patent No. 7,033,033) (herein Ishigami '033).

With respect to claims 11 and 24, Ishigami '239 discloses a snap fit assembly for interconnecting selected components of a vehicular mirror assembly, the components comprising a mirror housing (28) adapted to enclose a mounting frame (12) and a tilt actuator assembly (16); and having at least one of a first mounting stud (64), the mounting frame having at least one of a first mounting aperture (24), the snap-fit assembly comprising: wherein the at least one of a first mounting stud comprising a bulb end portion (i.e. end of 64) having a first diameter and a neck portion (66) having a second diameter smaller than the first diameter, the bulb end portion adapted for snap fit communication with the at least one of the first mounting aperture and the bulb end portion adapted for supporting communication with the mounting frame (figs. 1 and 10). Ishigami '239 is silent on how the tilt actuator is mounted and thus lacks specific mention of a second mounting stud of the mounting frame and the tilt actuator assembly having a second mounting aperture. However, the mounting of tilt actuators is well known in the art. For

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example, Ishigami '033 discloses a tilt actuator assembly (30) for a rearview mirror mounted to a mounting frame (14) having at least one second mounting aperture (44) by at least one mounting stud (20) comprising a bulb end portion (22) having a first diameter and a neck portion (between 18 and 22) having a second diameter smaller than the first diameter, the bulb end portion adapted for snap fit communication with the second mounting aperture and the bulb end portion adapted for supporting communication with the tilt actuator assembly (figs. 1, 4A, and 4B). At the time of invention, it would have been obvious to one of ordinary skill in the art to use the snap fit mounting means of Ishigami '033 to mount the tilt actuator to the mounting frame in the Ishigami '239 mirror. The motivation for doing this would have been to provide a low cost, easy-to-assemble mirror that does not require additional tools (Ishigami '033 col. 1, lines 61-67).

With respect to claims 12 and 25, Ishigami '239 discloses the first mounting stud (64) is integrally attached to the mirror housing (28) (fig. 10).

With respect to claims 13 and 26, Ishigami '033 discloses the second mounting stud is integrally attached to the mounting frame (fig. 1).

With respect to claims 14 and 27, Ishigami '239 discloses the bulb end portion of the first mounting stud that is rigidly attached to the mirror housing (fig. 10).

With respect to claims 15 and 28, Ishigami '033 discloses the bulb end portion of the second mounting stud is rigidly attached to the mounting frame (fig. 1).

With respect to claims 21, 22, 34, and 35, Ishigami '239 discloses parts of the mirror to be made of ABS plastic but the combination lacks specific mention of the mounting bracket comprising glass-filled nylon, or polyester, or the housing to comprise acetal. However, these materials are well known in the art. At the time of invention, it would have been obvious to one

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of ordinary skill in the art to form the requisite elements out of the following materials: glass-filled nylon, acetal, and polyester since it has been held that the selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945). See also *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960). One of ordinary skill would have been motivated to do this because of material availability, cost of materials, or desirable inherent properties such as thermal expansion, resilience, durability, etc....

With respect to claims 23 and 36, the combination does not expressly disclose at least one of the mirror housing and the mounting bracket are injection molded. However, injection molding is a well-known method of forming mirror assembly elements. Further, when the reference teaches a product that appears to be the same as, or an obvious variant of, the product set forth in a product-by-process claim although produced by a different process, the claim is unpatentable even though the prior product was made by a different process. See *In re Marosi*, 710 F.2d 799, 218 USPQ 289 (Fed. Cir. 1983) and *In re Thorpe*, 777 F.2d 695, 227 USPQ 964 (Fed. Cir. 1985). See also MPEP §2113.

Claims 17-20, and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishigami et al. (US Patent Application Publication No. 2002/0130239) in view of Ishigami (US Patent No. 7,033,033) and in further view of Kurz, Jr. (US Patent No. 3,843,236).

With respect to claims 17-20 and 30-33, the combination of Ishigami '239 and Ishigami '033 discloses or suggests all the limitations of claim 11 as stated supra, but lacks the specifics of the connector including the bulb end portion comprising an annular face having an

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approximately 45 degree bevel, the neck portion comprising a truncated cone inclined approximately 10 degrees, the aperture comprising a wall inclined approximately 10 degrees, and the stud comprises a bore extending coaxially therethrough. However, snap connectors of various shapes are known in the art. For example, Kurz teaches a mounting stud (64) for a mirror comprises a neck portion (70) and a bulb end (66), the neck having a smaller diameter than the diameter of the bulb end. Kurz further teaches the bulb end comprises an annular face (72) having approximately a 45 degree bevel, the neck portion comprises a truncated cone inclined approximately 10 degrees and the stud comprises a bore (78) extending coaxially therethrough (fig. 5). Additionally, regarding claims 19 and 32, though Ishigami '239, Ishigami '033, and Furz teach apertures with a wall to accept their respective mounting studs, neither teaches the wall inclined approximately 10 degrees. However, one of ordinary skill would have understood that slightly inclining the aperture wall would allow the stud to be inserted more easily and would reduce vibrations when matched to the incline of the neck portion. Therefore, absent a showing of criticality, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a mounting stud like that of Kurz to the combination of Ishigami '239 and Ishigami '033. One would have been motivated to do this to provide a secure, removable snap-fit connection that is easy to assemble and helps prevent the transmission of vehicle vibrations to the mirror.

Response to Arguments

Applicant's arguments with respect to claims 2-37 have been considered but are moot in view of the new ground(s) of rejection.

The examiner notes that the subject matter of the art statement on page 7 of the office action dated 8/16/2006 (specifically, par. 1) has been taken to be admitted prior art since applicant failed to seasonably traverse the assertion of Official Notice (See MPEP § 2144.03).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited reference discloses features similar to those claimed or disclosed by the instant application.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

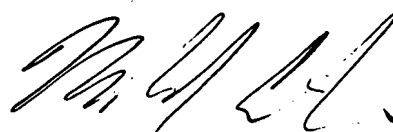
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Consilvio whose telephone number is (571) 272-2453. The examiner can normally be reached on Monday thru Thursday, 8:30 am to 6:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on (571) 272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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